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- **0**[s] value rounded to 0 (zero) where a meaningful distinction exists between true zero and the value rounded
- [p] preliminary
- [r] revised
- **x** suppressed to meet the confidentiality requirements of the *Statistics Act*
- [E] use with caution
- **F** too unreliable to be published

The distribution of mortgage debt in Canada

Raj K. Chawla

Many Canadians borrow in order to purchase homes or consumer goods or make financial investments. Credit can be used to shift day-to-day expenses in the short-run. In the long-run, debt can smooth consumption over peoples' life cycle, allowing them to invest in education and housing when they are young and pay down debt as their earnings and equity rise (Modigliani and Brumberg 1954, and Friedman 1957).

However, an overreliance on debt can lead to stress and reduced savings. Moreover, if a high debt load is combined with other adverse shocks, like the loss of a job, household assets may be put at risk.

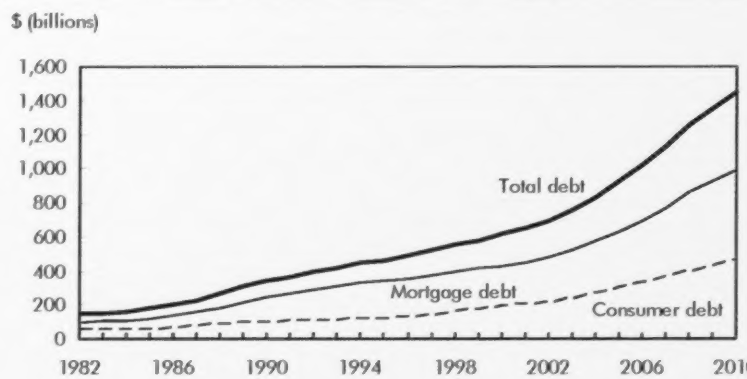
It has been widely reported that household debt is growing. A number of factors have contributed to the increase in household debt: the long-term decline in interest rates; low and stable inflation; housing demand associated with the ripple effect of the baby boom generation; the growth of two-income households; and a "self-perpetuating cycle" whereby increased housing and financial wealth provide collateral for further borrowing (TD Economics 2010).

This article begins with a look at recent trends in total debt, residential mortgages and consumer debt.[1] Since mortgage debt comprises two-thirds of household liabilities, this article focuses primarily on providing a more in-depth look at homeowners with a mortgage. The Survey of Household Spending (SHS) offers a perspective on the distribution of mortgage debt that is unavailable in macro-economic series. The SHS provides information on the characteristics of mortgage-holders, the size of their mortgage liability, and spending on other types of goods and services. Since the survey concepts have remained constant since 1997, changes in characteristics and mortgage liability over time are also presented.

Trends in household debt

Total household debt is the sum of mortgage debt and consumer debt. Consumer debt is not necessarily secured by collateral and includes outstanding debt on credit cards, bank and other loans, personal and home-equity lines of credit, and unpaid bills. In contrast, mortgage debt is generally linked to collateral (most

Chart A Trends in consumer, mortgage and total debt



Sources: Bank of Canada, CANSIM vectors v36408 (total debt), v122698 (consumer debt) and v122736 (mortgage debt), 1982 to 2010.

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often a house). Housing investment supported by a mortgage generally leads to an increase in net wealth through home equity (value minus outstanding mortgage debt) that contributes to financial security[2] (Brown et al. 2010 and Hou 2010).

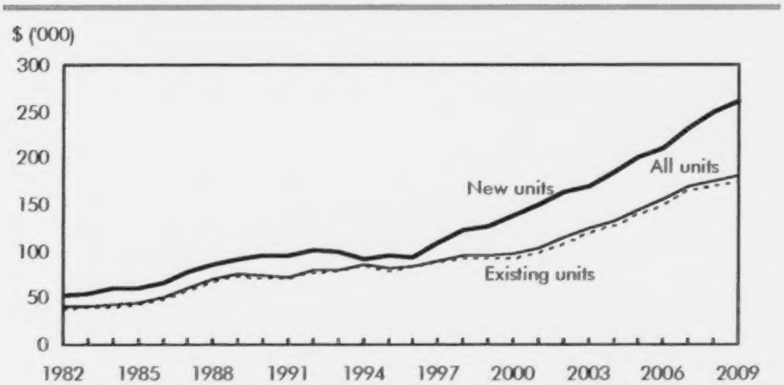
Between 1982 and 2010, mortgage debt grew from $99 billion to $994 billion (in current dollars), while consumer debt increased from $48 billion to $460 billion (Chart A). Over this period, their respective shares of total debt remained fairly stable, with mortgage debt accounting for two-thirds of total household debt.

Mortgage debt tied to price of real estate

One key factor behind the increase in residential mortgages has been the rising values of owner-occupied homes. The average market value of an owned dwelling quadrupled, from $71,800 to $303,500 (current dollars) between 1982 and 2008. Since the amount of mortgage taken out on a dwelling is tied to its purchase price, the average mortgage loan more than quadrupled in the same period, from $41,200 to$176,200.[3]

During the period from 1982 to 2009, new houses became more expensive relative to those on the resale market. This means that more mortgage debt, on average, was required to buy a new dwelling compared to a resale: 38% more in 1982; 48% more in 2008; and 51% more in 2009. Nonetheless, the average mortgage approved for both types of dwellings followed the same pattern, rising from $52,000 to $262,000 for new dwellings and from $37,700 to $173,000 for existing ones (Chart B).

Chart B Trends in average mortgages for new and existing dwellings



Source: Canada Mortgage and Housing Corporation, CANSIM table 027-0017, 1982 to 2009.

Mortgagees and mortgage-free homeowners

According to the 2008 Survey of Household Spending, there were 13 million households in Canada, of which about 65% owned a home (see *Data source and definitions*). Among homeowners, 57% made a mortgage payment in 2008 and the remaining 43% were mortgage-free. The mean age of persons[4] with a mortgage was 45 compared with 62 for those without a mortgage. Hence, on average, mortgagees are much younger than mortgage-free homeowners.

Among mortgagees in 2008, 67% had purchased their homes in the 10 previous years, compared with 71% in 1997. In other words, mortgagees in 1997 were slightly more likely to have bought in the preceding decade, compared with mortgagees in 2008, even though market conditions varied considerably between the two periods.

The aging of the population is mirrored in the distribution of mortgagees who have been in their current homes for less than 10 years. In 1997, 72% of these relatively recent purchasers were under 45 compared with 64% in 2008 (Table 1). At the same time, the proportion of recent buyers from 45 to 64 increased from 26% to 33%—similar to trends noted by Hou (2010).

The average value of a home varied across areas with differing population sizes and by region (Table 2).[5] In areas with a population of 500,000 or more (referred to as large metropolitan areas), the mean value of a home

Data source and definitions

The macroeconomic series relating to household debt is based on national accounts data for the household sector, which are available via the CANSIM database. Annual data compiled by Canada Mortgage and Housing Corporation (CMHC) on mortgage loans approved for new and existing dwellings are also included.

The analysis of mortgage-holders (or households who made a regular mortgage payment during the survey reference year) is drawn from the Survey of Household Spending (SHS) conducted by Statistics Canada on an annual basis since 1997 (previously such data were collected via the Family Expenditure Survey, which was conducted periodically at the national level). The 2009 SHS collected information on components of 2008 expenditures from a sample of approximately 9,800 private households in the 10 Canadian provinces, representing 13.2 million households. Of these, about two-thirds (8.4 million households) were homeowners. All financial data presented are in current dollars since the amount of debt incurred and paid back is all in current dollars, and to provide a glimpse of how prices of homes, mortgages, incomes, and expenditures have changed over time.

Household: A person or group of persons occupying one dwelling unit. The number of households equals the number of occupied dwellings.

Reference person: The household member being interviewed chooses which household member should be listed as the reference person after hearing the following definition: The household reference person is the member of the household mainly responsible for its financial maintenance (e.g., pays the rent, mortgage, property taxes and utilities). This person can be either male or female. When all members of the household share equally, any member may be shown as the reference person. This person must be a member of the household at the time of the interview.

Pre-tax household income: Sum of incomes before taxes and other deductions received during the reference calendar year by all members of the household. Sources include wages and salaries, net income from self-employment, rental and investment income, government transfers (Employment Insurance, Child Tax Benefit, Goods and Services Tax credits, provincial tax credits, social assistance, Old Age Security, Guaranteed Income Supplement, Canada Pension Plan and Quebec Pension Plan), private and employer pension plans, scholarships, alimony, and child support payments. Income-in-kind, windfall gains, capital gains and capital losses are excluded from this definition of income.

Disposable income: Pre-tax income *less* federal and provincial income tax *less* premiums/contributions paid on components pertaining to security (such as Employment Insurance, life insurance, Canada Pension Plan, Quebec Pension Plan, and other government and non-government work-related pension plans). Contributions to registered retirement savings plans and tax-free savings accounts are excluded from these deductions.

Expenditures collected: The SHS includes spending on all goods and services received during the 2008 reference calendar year. All expenses attributable to an owned business are excluded. On the other hand, taxes such as the Goods and Services Tax, provincial sales tax, duties, and customs and excise on all goods and services purchased are included in expenditures.

Total expenditure: Sum of expenditure on current consumption of goods and services, federal and provincial income tax paid, payments pertaining to security, and gifts and contributions made.

Current consumption (also referred to as **total consumer spending**): Includes expenditure on broad components including food, shelter, household operation, household furnishings and equipment, clothing, transportation, health, personal care, recreation, reading material and other printed matter, education, tobacco products and alcoholic beverages, and miscellaneous (for example, union dues and games of chance). For a detailed breakdown of these components and other details about the survey, see Statistics Canada (2009).

Total debt comprises mortgages on owner-occupied homes and other real estate, and all secured and unsecured consumer debt.

Mortgage debt is a debt taken under a legal contract to purchase a property including a home, vacation home and other real estate. It may also be taken by re-mortgaging a property to raise funds for other needs. Mortgage debt is repaid on legally agreed-upon terms including its amortization period, varying or fixed-term interest rates, frequency of payments, and any extra payments to pay off the principal or penalties for missed payments and other foreclosures.

Consumer debt including other secured and unsecured personal loans is debt owed on credit cards issued by chartered banks, department stores, oil companies and other institutions, loans to purchase vehicles and other goods and services, student loans, other secured and unsecured bank loans, personal and home-equity lines of credit, loans from other finance and payday loan companies, loans for any personal unincorporated businesses, and amounts outstanding on unpaid bills.

Mortgage-liability ratio refers to the regular mortgage payment (principal and interest) paid by the household during the reference year expressed as a percentage of its disposable income in that year. Conceptually, this is similar to the concept of debt-to-service ratio (DSR) used in financial literature and by institutions like the Bank of Canada. The only difference is that the DSR includes the payment for total debt rather than for mortgage on the home only.

Years owned a home or the number of years of residence at current dwelling is derived as 2009 *minus* the year moved into that dwelling as reported by a household.

Saving rate is defined as pre-tax household income less its expenditure as a percentage of disposable income.

Average expenditure (income) per household is calculated as the estimated total expenditure (income) of all households divided by the estimated number of households. A similar approach was used to calculate averages by components of expenditure. The denominator used is all households including those who may have had reported zero values for a given component.

Mean value of dwelling is the mean of current market prices of dwellings as reported by home-owning households in the 2008 SHS. In other words, it is the aggregate value of dwellings owned in current market prices divided by the estimated number of homeowners.

Table 1 Profile of homeowners who made a mortgage payment by years of residence[1] and selected characteristics

	1997				2008			
	Under 10 years	10 years or more	Total	Households owning a home less than 10 years	Under 10 years	10 years or more	Total	Households owning a home less than 10 years
	%							
Total	**100.0**	**100.0**	**100.0**	**70.8**	**100.0**	**100.0**	**100.0**	**67.2**
Age								
Under 45	72.1	36.1	61.6	82.9	64.0	24.2	50.9	84.4
45 to 64	25.6	55.3	34.3	52.9	32.6	65.6	43.4	50.4
65 or more	2.3	8.6	4.1	F	3.4	10.2	5.6	F
Area of residence								
Metropolitan								
Population 500,000 or more	50.2	44.3	48.5	73.4	51.3	44.9	49.2	70.0
Population 100,000 to 499,999	17.9	20.2	18.6	68.3	17.0	22.4	18.8	60.9
Other	16.1	14.5	15.6	72.9	19.7	17.9	19.1	69.2
Rural	15.8	21.0	17.3	64.6	11.9	14.8	12.9	62.3
Region								
Atlantic	6.3	10.4	7.5	59.7	6.6	9.2	7.5	59.5
Quebec	20.6	27.4	22.6	64.7	21.7	22.8	22.0	66.0
Ontario	39.7	37.2	39.0	72.1	38.7	39.5	39.0	66.7
Prairies	18.2	13.8	16.9	76.2	18.9	16.9	18.3	69.7
British Columbia	15.2	11.3	14.1	76.6	14.1	11.6	13.3	71.3
Sample size	4,013	1,769	5,782	...	2,333	1,262	3,595	...
Number of households ('000)	2,757	1,135	3,893	...	3,312	1,620	4,932	...

1. Years of residence at a dwelling owned at the time of the survey.
Source: Statistics Canada, Survey of Household Spending, 1997 and 2008.

was $358,000 compared with $289,900 in areas with a population between 100,000 and 499,999 (small metropolitan areas). On a regional basis, the average dwelling value of mortgage-holders in British Columbia was $458,900 in 2008, compared with $320,600 in Ontario.[6]

Generally speaking, the average value of a home was also higher for mortgagees who bought between 1999 and 2008, compared with those who bought in 1998 or earlier. The exception was in British Columbia.

Mortgage liability varies by age, area of residence and region

Although the Survey of Household Spending does not provide data on outstanding mortgage debt, information is available on mortgage payments. Mortgage payments can vary according to the amount financed, interest rate and amortization period.

Since housing prices are generally higher in metropolitan areas with a population of at least 500,000, households living in large metropolitan areas made higher mortgage payments. Among households who still had a mortgage, payments averaged $14,400 in large metropolitan areas in 2008, compared with $9,800 for those living in rural areas (Table 2). On a regional level, British Columbians had the highest mortgage payments ($14,900), followed closely by Ontarians ($14,200). Mortgage-holders in the Atlantic region, on average, had the lowest payments ($8,700).

More recent home buyers had higher mortgage payments than those with longer tenure. Mortgage payments averaged $13,400 among those who had

been in their homes less than 10 years, compared with $10,800 for those who bought before 1999.[7]

Mortgage payments varied less across age groups. Younger mortgagees made somewhat higher payments than their older counterparts. Mortgage holders under age 45 paid $13,200 on average, compared with $12,200 among those from 45 to 64. However, as noted earlier, there is a much higher percentage of mortgage-free homeowners in the over-45 group.

Since mortgage payments alone provide little indication of the financial burden imposed by a mortgage, they must be related to disposable income (i.e., income after federal and provincial income taxes and other social security deductions like contributions, for example, toward Canada Pension Plan, Quebec Pension Plan, Employment Insurance, and pensions). Such a 'mortgage-liability ratio'[8] can be calculated by dividing average mortgage payments by average disposable income. On average, households with a mortgage paid 17 cents of each income dollar on mortgage payments in 2008.

Homeowners who purchased their homes between 1999 and 2008 spent a higher proportion of their disposable income on mortgage payments than those who purchased before 1999—18 cents of every dollar compared with 15 cents. Again, households with a reference person under 45, and those living in large metropolitan areas paid a larger proportion of their disposable income on mortgages compared with other groups. On a regional level, households in British Columbia paid 20 cents of every dollar on mortgage payments compared with 18 cents in Ontario and 14 cents in the Atlantic region.

Table 2 Mean value of dwelling, mortgage payment and disposable income of homeowners with a mortgage by years owning a home and selected characteristics

	Mean value of dwelling			Mean mortgage payment			Mean disposable income		
	Under 10 years	10 years or more	Total	Under 10 years	10 years or more	Total	Under 10 years	10 years or more	Total
					$				
Total	**309,000**	**292,800**	**303,700**	**13,400**	**10,800**	**12,500**	**73,800**	**72,600**	**73,400**
Age									
Under 45	302,200	268,900	297,000	13,500	11,500	13,200	72,200	79,400	73,300
45 to 64	330,000	299,800	315,000	13,500	10,900	12,200	79,500	73,800	76,700
65 or more	F	304,000	275,700	F	8,200	8,300	F	48,700	48,600
Area of residence									
Metropolitan									
Population 500,000 or more	358,000	358,000	358,000	15,500	11,800	14,400	79,700	79,800	79,700
Population 100,000 to 499,999	306,400	264,200	289,900	12,900	11,500	12,400	74,800	73,700	74,400
Other	226,800	227,500	227,000	10,200	8,600	9,700	66,600	62,400	65,300
Rural	237,700	217,000	229,900	10,100	9,200	9,800	59,000	61,300	59,900
Region									
Atlantic	180,000	155,500	170,100	9,400	7,800	8,700	61,400	58,200	60,100
Quebec	220,800	213,800	218,400	10,100	8,500	9,600	62,900	60,600	62,100
Ontario	324,500	312,700	320,600	15,100	12,300	14,200	78,200	78,400	78,300
Prairies	318,100	298,600	312,200	13,400	10,000	12,400	81,900	78,600	80,900
British Columbia	450,100	480,700	458,900	15,400	13,600	14,900	73,400	79,300	75,100

Source: Statistics Canada, Survey of Household Spending, 2008.

Table 3 Distribution of homeowners by size of mortgage payment relative to disposable income and selected characteristics

	All home-owners	Home-owners without a mortgage	Mortgage-liability ratio Under 10%	10% to 19%	20% or more	Total	Home-owners with a mortgage
							%
Sample size	6,840	3,245	820	1,614	1,158	3,595	...
Estimated number of households ('000)	8,601	3,669	945	2,109	1,872	4,932	57.3
				%			
Distribution of households	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**...**
Age of reference person							
Under 45	33.6	10.3	46.1	47.6	57.1	50.9	86.9
45 to 64	45.1	47.3	48.2	46.8	37.3	43.4	55.2
65 and over	21.3	42.4	5.7	5.7	5.6	5.6	15.1
Number of years dwelling owned							
Under 10	47.1	20.2	61.5	61.6	76.2	67.2	81.7
10 or more	52.9	79.8	38.5	38.4	23.8	32.8	35.6
Area of residence							
Metropolitan							
Population 500,000 or more	46.7	43.4	39.3	47.6	56.0	49.2	60.4
Population 100,000 to 499,999	18.3	17.7	20.4	19.6	17.0	18.8	58.7
Other	19.1	19.0	26.0	19.3	15.6	19.1	57.5
Rural	15.8	19.8	14.3	13.5	11.4	12.9	46.6
Region							
Atlantic	8.3	9.5	10.6	8.4	4.9	7.5	51.4
Quebec	21.9	21.8	24.3	25.3	17.1	22.0	57.7
Ontario	37.5	35.6	33.0	36.5	44.9	39.0	59.5
Prairies	18.3	18.3	22.0	18.9	15.7	18.3	57.3
British Columbia	14.0	14.9	10.1	10.9	17.4	13.3	54.5
Overall mean							
Age of reference person (years)	52.2	61.8	45.7	45.7	44.1	45.1	...
Years dwelling owned	14.8	23.0	9.2	9.6	7.6	8.7	...
Value of dwelling ($)	303,500	303,400	263,500	297,700	330,500	303,700	...
Mortgage payment ($)	...	...	6,300	11,400	17,000	12,500	...
Mean years dwelling owned by age				years			
Under 45	6.3	11.6	5.7	6.0	4.9	5.5	...
45 to 64	15.6	20.5	11.9	12.1	10.8	11.6	...
65 or more	26.7	28.6	14.9	18.0	13.6	15.7	...
Mean value of dwelling by age				$			
Under 45	300,900	326,700	237,000	301,900	316,300	297,000	...
45 to 64	319,700	325,400	291,500	296,000	358,000	315,000	...
65 or more	273,500	273,100	240,800	277,200	292,000	275,700	...
Mean mortgage payment by age							
Under 45	...	...	6,100	11,800	17,400	13,200	...
45 to 64	...	...	6,800	11,300	17,100	12,200	...
65 or more	...	...	3,500	7,900	11,200	8,300	...

Note: Mortgage-liability ratio is mortgage payment expressed as a percentage of disposable income.
Source: Statistics Canada, Survey of Household Spending, 2008.

The distribution by size of mortgage liability provides further information on those with relatively high mortgage burdens. Three groups are defined: those who spent 20% or more of their disposable income on mortgage payments; those who spent between 10% and 19%; and those who spent less than 10%. Overall, 38% of homeowners paid 20% or more of their disposable income on mortgage payments in 2008; 43% paid 10% to 19%; and the remaining 19% paid less than 10% (Table 3).

Life-cycle theory suggests that mortgage liability should drop as the number of years in the residence increases or as the homeowner ages. Moreover, disposable income is higher among prime-age households than younger households. These patterns are evident in the data—households who spent 20% or more of their disposable income were more likely to be under 45 (57%, as opposed to 46%, among those who spent less than 10%) and more likely to have bought in the past 10 years (76%, as opposed to 62%, among those who spent less than 10%).

Households living in large or small metropolitan areas and households in Ontario and British Columbia were also more likely to have higher mortgage-liability ratios. Of all households with a high mortgage liability (20% or more), 62% were living in these two provinces compared with 51% of all homeowners. These households made average mortgage payments of $17,000 compared with $6,300 for those who paid less than 10% of their income on mortgage payments. In other words, homeowners with a high mortgage liability paid $900 more per month than those with a lower liability.

Changes in mortgage-liability ratio

The recent increase in mortgage debt translated into a larger share of households paying more than 20% of their disposable income on mortgages in 2008 than in 2001. The proportion paying more than this threshold increased from 32% in 2001 to 38% in 2008, while the proportion paying from 10% to 19% declined (Table 4). However, the proportion of households who spent 20% or more of their income on mortgages was 40% in 1997—the beginning of the recent increase in prices. So the burden of mortgage payments in 2008 remained within recent norms.

Still, trends may vary across age groups. The proportion in the two youngest age groups putting 20% or more of their income toward a mortgage increased markedly between 2001 and 2008. However, 2001 represented a low point for both the under-35 group and 35-to-44 group such that the 2008 proportions with relatively high mortgage liabilities were similar to those experienced by their counterparts in the late 1990s.

This contrasts with the trend among older age groups. The proportion of mortgagees from 45 to 54 spending at least 20% of their disposable income on mortgage payments remained relatively stable over the

Table 4 Distribution of households with a mortgage by size of mortgage liability and age, selected years

	Mortgage-liability ratio			
	Under 10%	10% to 19%	20% or more	Total
		%		
All households				
1997	17.8	42.3	39.8	100.0
2001	18.7	49.8	31.5	100.0
2008	18.7	43.2	38.1	100.0
Under 35				
1997	15.4	41.9	42.8	100.0
2001	19.4	47.9	32.7	100.0
2008	20.2	34.5	45.3	100.0
35 to 44				
1997	14.7	43.3	42.0	100.0
2001	16.8	51.0	32.1	100.0
2008	15.2	43.8	41.1	100.0
45 to 54				
1997	22.1	43.2	34.7	100.0
2001	20.8	51.3	27.9	100.0
2008	21.5	48.7	29.8	100.0
55 to 64				
1997	21.8	39.7	38.5	100.0
2001	17.1	51.5	31.4	100.0
2008	19.6	42.3	38.2	100.0

Note: Respective sample sizes were too small to show reliable distributions for households 65 and over.
Mortgage-liability ratio is mortgage payment expressed as a percentage of disposable income.
Sources: Statistics Canada, Survey of Household Spending, 1997, 2001 and 2008.

2000s at a level that was lower than in the late 1990s. Among mortgagees in the pre-retirement age group (55 to 64) in 2008, 38% had a higher mortgage liability and 20% a lower liability—the remaining 42% spent between 10% and 19% of their income on mortgage payments.

Spending differs among those with a higher mortgage-liability ratio

For a given dollar of disposable income, those without a mortgage spent 81 cents on consumption of goods and services, 4 cents on gifts and contributions and saved the remaining 15 cents (Table 5). The corresponding shares for households with a mortgage were 94 cents, 2 cents and 4 cents, respectively.[9] Households without a mortgage spent relatively more on gifts and contributions and saved more. They also spent relatively more on food and out-of-pocket health expenses. Of course, the key difference between the two groups is shelter, as households with a mortgage spent 2.6 times more on housing-related costs than their counterparts without a mortgage. When mortgage payments were excluded, both groups spent almost the same amount on other shelter-related expenses (e.g., property taxes, utilities and repairs/renovations). This reflects the nearly equal average value of their homes: $304,000 for those with a mortgage, $303,000 for those without.

Households spending 20% or more of their disposable income on mortgage payments had different spending patterns than those with a lower mortgage-liability ratio. For every dollar of their disposable income, they

Table 5 Mean disposable income and its disbursement by component of current consumption of homeowners and by size of mortgage liability

	All homeowners	Homeowners without a mortgage	Mortgage-liability ratio: Under 10%	Mortgage-liability ratio: 10% to 19%	Mortgage-liability ratio: 20% or more	Homeowners with a mortgage
				$		
Disposable income	**66,600**	**57,000**	**96,200**	**76,800**	**59,200**	**73,700**
			disbursement of disposable income (%)			
Food	12.6	13.4	10.0	12.4	13.4	12.1
Shelter	24.6	14.9	20.0	26.8	43.6	30.2
Household operation	5.9	5.7	5.5	5.9	6.7	6.0
Household furnishings and equipment	3.6	3.4	3.9	3.6	3.9	3.7
Clothing	4.9	4.7	4.9	5.0	5.2	5.1
Transportation	17.6	17.7	16.9	17.5	18.3	17.6
Health	3.6	4.5	2.7	3.1	3.2	3.0
Personal care	2.0	2.0	1.9	2.0	2.1	2.0
Recreation	7.4	7.5	7.7	7.4	7.3	7.4
Reading material and other printed matter	0.5	0.5	0.4	0.4	0.4	0.4
Education	2.1	1.8	1.9	2.3	2.4	2.2
Tobacco products and alcoholic beverages	2.3	2.3	2.2	2.4	2.3	2.3
Miscellaneous	2.4	2.7	2.3	2.0	2.3	2.2
Total consumption	89.5	81.0	80.1	90.8	111.1	94.4
Gifts and contributions	2.9	4.3	2.7	1.8	1.9	2.1
Savings (pre-tax income less expenditure)	7.6	14.7	17.2	7.3	-13.0	3.5
Disposable income	100.0	100.0	100.0	100.0	100.0	100.0
Sample size	6,840	3,245	820	1,614	1,158	3,595
Number of households ('000)	8,601	3,669	945	2,109	1,872	4,932

Note: Mortgage-liability ratio is mortgage payment expressed as a percentage of disposable income.
Source: Statistics Canada, Survey of Household Spending, 2008.

spent 44 cents on housing, followed by transportation (18 cents) and food (13 cents). Overall, expenditures exceeded their disposable income by 13%. Among those spending less than 10% on mortgage payments, 20 cents of every dollar were spent on housing, 17 cents on transportation, and 10 cents on food. These households also saved 17% of their disposable income. Thus households with a high mortgage-liability ratio allocate more money to overall consumption and less to savings. However, since there is an investment component to mortgage payments, in most cases they lead to increased wealth and lower housing costs as the mortgage is paid off.

Summary

The indebtedness of Canadian households increased from $147 billion in 1982 to $1,454 billion by 2010—in current dollars. Two-thirds of the increase between 1982 and 2010 occurred between 1999 and 2010—a period characterized by relatively low interest and inflation rates. Residential mortgages accounted for two-thirds of overall household debt, with consumer debt accounting for the other third. The split of total household debt along these two key components remained stable over this period.

Mortgage debt increased in lock step with housing prices. The average price of a dwelling rose from $71,800 in 1982 to $303,500 in 2008, while the average mortgage per dwelling increased similarly from $41,200 to $176,200.

Mortgagees are younger and more likely to be recent home purchasers than mortgage-free households. Recent purchasers also tend to have higher mortgage payments than those who have been in their homes longer. Payments are higher, on average, in large metropolitan regions than smaller centres. On a regional level, British Columbia and Ontario mortgage-holders have the highest average payments.

This article examined the financial burden of homeowners by calculating mortgage payments as a proportion of disposable income, referred to as the mortgage-liability ratio. Although debt liability increased over the 2000s, mortgage debt was also relatively high at the end of the 1990s. However, the proportion of households spending at least 20% of their disposable income on mortgages increased faster among younger households in recent years. Households with a larger mortgage-liability ratio—spending 20% or more of their disposable income on a mortgage—spent more on housing and saved less than households who spent less than 10% of their disposable income on mortgage payments. This group was mainly comprised of younger households and recent purchasers, who typically make larger mortgage payments at this point in their life cycle.

Perspectives

Notes

1. Unless otherwise stated, all financial numbers are expressed in current dollars as financial transactions that relate to borrowing and repayments are made in current dollars. The interest charged on borrowed funds (i.e., the cost of borrowing) is designed not only to protect the loss of purchasing power of funds, but also to cover the lender's cost of capital, service charges and profit intake.
2. Home equity provides ongoing consumption of housing services equivalent to the rental value of the home after adjustments for other costs of ownership are made (primarily property taxes and utilities that would normally be included in rent payments).
3. These numbers are based on CMHC data on loan approvals, which are available via CANSIM (Table 027-0017).
4. In the Survey of Household Spending, a reference person for the household is defined as the household person who is primarily responsible for household finances (see *Data source and definitions*). The age of the reference person should therefore be representative of the homeowner(s).
5. The value of the home is estimated by the reference person.
6. The differences discussed above were statistically significant at the 5% level.
7. The difference between these two groups was statistically significant at the 5% level.
8. The mortgage-liability ratio differs from the debt-service ratio published by the Bank of Canada, which divides all consumer and mortgage debt payments by disposable income. Families are considered financially vulnerable if they spend at least 40% of their disposable income on debt payments (Faruqui 2008). It also differs from Canada Mortgage and Housing Corporation's shelter cost-to-income ratio, which divides all shelter costs by pre-tax income. Affordable housing costs less than 30% of pre-tax income.

9. Note that owner-occupied housing may also be treated as an asset that produces rent-equivalent income. See, for example, Brown et al. (2010).

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